### **PATENT COOPERATION TREATY**



### From the INTERNATIONAL SEARCHING AUTHORITY

### PCT

| SCIENTIFIC-ATLANTA, INC. Attn. Lafferty, Brook W. Intellectual Property Department 5030 Sugarloaf Parkway Lawrenceville, GA 30044 ETATS-UNIS D'AMERIQUE | NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION |
|---|---|
|   | (PCT Rule 44.1)   |
| <del></del>   | Date of mailing (day/month/year) 19/02/2007   |
| Applicant's or agent's file reference   |   |
| F-10410-PC  | FOR FURTHER ACTION See paragraphs 1 and 4 below   |
| International application No.   | International filing date   |
| PCT/IIS2006/033965  | (day/month/year) 31/08/2006   |

| 1. | X              | The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.  |
|----|----------------|---|
|    |                | Filing of amendments and statement under Article 19: The applicant is entitled, if he so wishes, to amend the claims of the International Application (see Rule 48):  |
|    |                | When? The time limit for filing such amendments is normally two months from the date of transmittal of the<br>international Search Report.  |
|    |                | Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Fascimile No.: (41-22) 338.82.70  |
|    |                | For more detailed instructions, see the notes on the accompanying sheet.  |
| 2. |                | The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.  |
| 3. |                | With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:   |
|    |                | the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.  |
|    |                | no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.   |
| 4. | Rem            | ninders   |
|    | Inter<br>appli | rity after the expiration of <b>18 months</b> from the priority date, the international application will be published by the mational Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the International ication, or of the priority claim, must reach the International Bureau as provided in Rulea 90 <i>bis</i> .1 and 90 <i>bis</i> .3, respectively, re the completion of the technical preparations for international publication. |
|    | interi         | applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the national Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an national preliminary examination report has been or is to be established. These comments would also be made available to public but not before the expiration of 30 months from the priority date.  |
|    | exan<br>date   | in 19 months from the priority date, but only in respect of some designated Offices, a demand for international preliminary nination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority (in some Offices even later); otherwise, the applicant must, within 20 months from the priority date, perform the prescribed for entry into the national phase before those designated Offices.                          |
|    | In res         | spect of other designated Offices, the time limit of 30 months (or later) will apply even if no demand is filed within 19   |

Name and mailing address of the International Searching Authority

European Patent Office, P.B. 5818 Patentlaan 2

NL-2280 HV Rijswijk

Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Chantal Flohr

See the Annex to Form PCT/IB/301 and, for details about the applicable time limits, Office by Office, see the *PCT Applicant's Guide*, Volume II, National Chapters and the WIPO Internet site.

Applicant

SCIENTIFIC-ATLANTA, INC.

### **PATENT COOPERATION TREATY**

## **PCT**

### INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

| Applicant's or agent's file reference F - 10410 - PC   | FOR FURTHER ACTION as we  | see Form PCT/ISA/220<br>all as, where applicable, item 5 below.                   |
|--|---|---|
| International application No.  | International filing date (day/month/year)  | (Earliest) Priority Date (day/month/year)   |
| PCT/US2006/033965  | 31/08/2006  | 07/09/2005  |
| Applicant SCIENTIFIC-ATLANTA, INC.   |   |   |
| This international search report has bee according to Article 18. A copy is being to This international search report consists |   | ority and is transmitted to the applicant   |
| ·  | by a copy of each prior art document cited in this  | s report.   |
| 1. Basis of the report   |   |   |
|  | e international search was carried out on the ba  |   |
| a translation of t   | application in the language in which it was filed<br>the international application into           | , which is the language   |
|  | furnished for the purposes of international searce<br>sotide and/or amino acid sequence disclosed | in (Hules 12.3(a) and 23.1(b)) I in the international application, see Box No. I. |
| 2. Certain claims were fo  | und unsearchable (See Box No. II)   |   |
| 3. X Unity of Invention is la  | cking (see Box No III)  | ·   |
| 4. With regard to the <b>title</b> ,   |   |   |
|  | submitted by the applicant  |   |
| <u></u>  | ished by this Authority to read as follows:   |   |
|  |   |   |
|  |   |   |
|  |   |   |
|  |   |   |
| 5. With regard to the <b>abstract</b> ,  |   |   |
| ( <del>121</del> 1)  | ubmitted by the applicant   |   |
| the text has been establi  | shed, according to Rule 38.2(b), by this Authori  |   |
| may, within one month fr   | om the date of mailing of this international sear   | ch report, submit comments to this Authority                                      |
| With regard to the drawings,   |   |   |
| <del></del>  | published with the abstract is Figure No. 3   |   |
| X as suggested by  | • •   |   |
|  | is Authority, because the applicant failed to sug   |   |
|  | is Authority, because this figure better characte   | enzes the invention   |
| b none of the figures is to b  | pe published with the abstract  |   |

### INTERNATIONAL SEARCH REPORT

International application No PCT/US2006/033965

|  |  | PC1/03200  | 96/033965                                 |  |  |  |  |  |
|--|--|--|---|--|--|--|--|--|
| A. CLASS<br>INV.   | HFICATION OF SUBJECT MATTER<br>H04N7/173   |  |   |  |  |  |  |  |
| According to   |  |  |   |  |  |  |  |  |
|  | to International Patent Classification (IPC) or to both national class  SEARCHED   | INCEDURI AND IFC   |   |  |  |  |  |  |
|  | ocumentation searched (classification system followed by classific   | cation symbols)  |   |  |  |  |  |  |
| HO4N   | 4.6.4.   | , ,  |   |  |  |  |  |  |
| Documenta  | tion searched other than minimum documentation to the extent th  | at such documents are included in the fields so  | parched                                   |  |  |  |  |  |
| Electronic d   | lata base consulted during the international search (name of data  | base and, where practical, search terms used   | )   |  |  |  |  |  |
| EPO-In   | ternal, WPI Data, PAJ  |  |   |  |  |  |  |  |
| C. DOCUM   | ENTS CONSIDERED TO BE RELEVANT   |  |   |  |  |  |  |  |
| Category*  | Citation of document, with indication, where appropriate, of the   | relevant passages  | Relevant to claim No.                     |  |  |  |  |  |
| Х  | WO 02/097584 A (HYPERSPACE COMM<br>INC [US]) 5 December 2002 (2002   |  | 1-16                                      |  |  |  |  |  |
| Y  | paragraphs [0019] - [0022], [6<br>[0033]   |  | 20  |  |  |  |  |  |
| A  | WO 01/77888 A2 (KONINKL PHILIPS<br>ELECTRONICS NV [NL])<br>18 October 2001 (2001-10-18)<br>the whole document  | 1-16   |   |  |  |  |  |  |
| A  | WO 2004/100500 A2 (THOMSON LICE<br>[FR]; GRIMES KEVIN LLOYD [US];<br>ANGELA REN) 18 November 2004 (2   | BURNETT  | 1-16                                      |  |  |  |  |  |
| γ  | the whole document   | ,  | 21  |  |  |  |  |  |
| A  | US 2003/174243 A1 (ARBEITER JAM<br>[US] ET AL) 18 September 2003 (<br>the whole document   | IES HENRY<br>2003-09-18)   | 1-16                                      |  |  |  |  |  |
|  |  | -1   |   |  |  |  |  |  |
|  |  | -/   |   |  |  |  |  |  |
| X Furth  | er documents are listed in the continuation of Box C.  | X See patent family annex.   | I   |  |  |  |  |  |
| * Special ca   | ategories of cited documents:  | "T" later document published after the inte  | mational filling date                     |  |  |  |  |  |
|  | nt defining the general state of the art which is not<br>ared to be of particular relevance  | or priority date and not in conflict with<br>cited to understand the principle or th   | the application but                       |  |  |  |  |  |
| "E" earlier de   | ocument but published on or after the international  | invention "X" document of particular relevance; the o  | laimed Invention                          |  |  |  |  |  |
| which is   | are<br>it which may throw doubts on priority claim(s) or<br>s cited to establish the publication date of another<br>or other special reason (as specified) | cannot be considered novel or cannot involve an inventive step when the do "Y" document of particular relevance to cannot be considered to involve as in | cument is taken alone<br>laimed invention |  |  |  |  |  |
| "O" document referring to an oral disclosure, use, exhibition or other means ments, such combined with one or more other such document is combined with one or more other such documents, such combination being obvious to a person skilled |  |  |   |  |  |  |  |  |
| "P" documer  | "P" document published prior to the international filing date but later than the priority date claimed "8" document member of the same patent family       |  |   |  |  |  |  |  |
| Date of the a  | ctual completion of the international search   | Date of mailing of the international sea   | rch report                                |  |  |  |  |  |
| 1  | February 2007  | 19 02  | 2807                                      |  |  |  |  |  |
| Name and ma  | ailing address of the ISA/   | Authorized officer   |   |  |  |  |  |  |
|  | European Patent Office, P.B. 5818 Patentiaan 2<br>NL - 2280 HV Rijswijk<br>Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,<br>Fax: (+31-70) 340-3016            | Bertrand, Frédéri  | c   |  |  |  |  |  |

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### INTERNATIONAL SEARCH REPORT

International application No
PCT/US2006/033965

| C(Continue           | tion). DOCUMENTS CONSIDERED TO BE RELEVANT   | PC1/052000/053905        |
|----------------------|--|--------------------------|
| Category*            | Citation of document, with indication, where appropriate, of the relevant passages   | Relevant to claim No.    |
| A                    | US 2005/160468 A1 (RODRIGUEZ ARTURO A [US]<br>ET AL) 21 July 2005 (2005-07-21)<br>cited in the application<br>the whole document | 1-16                     |
| <b>\</b>             | US 2004/133907 A1 (RODRIGUEZ ARTURO A [US]<br>ET AL) 8 July 2004 (2004-07-08)<br>cited in the application<br>the whole document  | 1-16                     |
| <b>Κ</b><br><b>Υ</b> | US 6 259 733 B1 (KAYE JAMES E [US] ET AL)<br>10 July 2001 (2001-07-10)<br>column 7, lines 54-66                                  | 17-19,<br>28-30<br>20,21 |
| X                    | WO 2004/091219 A (KONINKL PHILIPS ELECTRONICS NV [NL]; WOOD KARL J [GB]; OWLETT TIMOTHY)   | 22,23                    |
| A                    | 21 October 2004 (2004-10-21) page 4, line 6 the whole document   | 24-27                    |
| X                    | US 2003/219228 A1 (THIAGARAJAN BALAJI [US]<br>ET AL) 27 November 2003 (2003-11-27)<br>figure 5                                   | 22,23                    |
| A                    | US 2003/221194 A1 (THIAGARAJAN BALAJI [US]<br>ET AL) 27 November 2003 (2003-11-27)<br>the whole document                         | 22-32                    |
| A                    | US 5 721 829 A (DUNN MATTHEW W [US] ET AL)<br>24 February 1998 (1998-02-24)<br>the whole document                                | 22-27                    |
| x                    | EP 1 069 801 A1 (IBM [US])<br>17 January 2001 (2001-01-17)<br>the whole document   | 33-44                    |
| A                    | US 2003/074214 A1 (KELLIHER TIMOTHY L [US]) 17 April 2003 (2003-04-17) the whole document  | 33-44                    |
|                      |  |                          |
|                      |  |                          |
|                      |  |                          |
|                      |  |                          |
|                      |  |                          |

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### INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/US2006/033965

| Patent document cited in search report |    | Publication date |                            | Patent family<br>member(s)                                   |              | Publication date   |
|--|----|------------------|----------------------------|--|--------------|--|
| WO 02097584                            | A  | 05-12-2002       | NON                        | E  |              |  |
| WO 0177888                             | A2 | 18-10-2001       | AT<br>JP<br>US             | 338307<br>2003533712<br>2001039572                           | T            | 15-09-2006<br>11-11-2003<br>08-11-2001                             |
| WO 2004100500                          | A2 | 18-11-2904       | BR<br>CN<br>EP<br>JP<br>KR | PI0410034<br>1784859<br>1620975<br>2006525771<br>20060038924 | A<br>A2<br>T | 25-04-2006<br>07-06-2006<br>01-02-2006<br>09-11-2006<br>04-05-2006 |
| US 2003174243                          | A1 | 18-09-2003       | NONE                       |  |              |  |
| US 2005160468                          | A1 | 21-07-2005       | CA<br>WO                   | 2554208<br>2005071658  |              | 04-08-2005<br>04-08-2005   |
| US 2004133907                          | A1 | 08-07-2004       | US<br>US                   | 6986156<br>2005071882  |              | 10-01-2006<br>31-03-2005   |
| US 6259733                             | B1 | 10-07-2001       | US                         | 2001014121   | A1           | 16-08-2001   |
| WO 2004091219                          | Α  | 21-10-2004       | NONE                       |  |              |  |
| US 2003219228                          | A1 | 27-11-2003       | US                         | 2007031111   | A1           | 08-02-2007   |
| US 2003221194                          | A1 | 27-11-2003       | NONE                       |  |              |  |
| US 5721829                             | Α  | 24-02-1998       | NONE                       |  |              |  |
| EP 1069801                             | A1 | 17-01-2001       | DE<br>DE<br>US             | 69920893<br>69920893<br>6765873                              | T2           | 11-11-2004<br>09-03-2006<br>20-07-2004                             |
| US 2003074214                          | A1 | 17-04-2003       | US                         | 2003074480   | <br>A1       | 17-04-2003   |

corrected version

### **INTERNATIONAL SEARCH REPORT**

International application No. PCT/US2006/033965

| Box II    | Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)  |
|-----------|--|
| This Inte | ernational Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:   |
| 1.        | Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:  |
| 2         | Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically: |
| 3.        | Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).   |
| Box III   | Observations where unity of invention is lacking (Continuation of Item 3 of first sheet)   |
| This Inte | ernational Searching Authority found multiple inventions in this international application, as follows:  |
|           | see additional sheet   |
| 1. X      | As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.   |
|           | As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.   |
|           | As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:                       |
| 4.        | No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:           |
| Remark o  | The additional search fees were accompanied by the applicant's protest.  No protest accompanied the payment of additional search fees.   |

International Application No. PCT/ US2006/033965

### FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-16

optimizing bandiwdth utilization to a television subscriber premises, depending on the subscriber terminal capabilities, especially the display

2. claims: 17-32

optimizing bandwidth utilization to a television subscriber premises, depending on the program content type or theme (e.g. sports, cartoon)

3. claims: 33-44

optimizing bandwidth utilization to a television subscriber premises, by selecting and assessing the different communication paths available

### PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY PCT To: WRITTEN OPINION OF THE see form PCT/ISA/220 INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1) Date of mailing (day/month/year) see form PCT/ISA/210 (second sheet) Applicant's or agent's file reference FOR FURTHER ACTION see form PCT/ISA/220 See paragraph 2 below Priority date (day/month/year) International application No. International filing date (day/month/year) PCT/US2006/033965 07.09.2005 31.08.2006 International Patent Classification (IPC) or both national classification and IPC INV. H04N7/173 **Applicant** SCIENTIFIC-ATLANTA, INC. This opinion contains indications relating to the following items: Box No. I Basis of the opinion ☐ Box No. II **Priority** ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability ☑ Box No. IV Lack of unity of invention Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement ☐ Box No. VI Certain documents cited ☐ Box No. VII Certain defects in the international application Box No. VIII Certain observations on the international application **FURTHER ACTION** If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1 bis(b) that written opinions of this International Searching Authority will not be so considered. If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later. For further options, see Form PCT/ISA/220. For further details, see notes to Form PCT/ISA/220. Name and mailing address of the ISA: Date of completion of **Authorized Officer** this opinion

see form

PCT/ISA/210

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European Patent Office - Gitschiner Str. 103 D-10958 Berlin

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No. PCT/US2006/033965

|    | Bo           | x N      | o. I Basis of the opinion   |
|----|--------------|----------|---|
| 1. | Wi           | th re    | egard to the language, this opinion has been established on the basis of:   |
|    | ×            | th       | e international application in the language in which it was filed   |
|    |              | a<br>pu  | translation of the international application into , which is the language of a translation furnished for the irposes of international search (Rules 12.3(a) and 23.1 (b)).  |
| 2. |              |          | egard to any nucleotide and/or amino acid sequence disclosed in the international application and sary to the claimed invention, this opinion has been established on the basis of:   |
|    | <b>a</b> . 1 | type     | of material:  |
|    |              |          | a sequence listing  |
|    |              |          | table(s) related to the sequence listing  |
|    | <b>b</b> . 1 | form     | nat of material:  |
|    |              |          | on paper  |
|    |              |          | in electronic form  |
|    | c. t         | ime      | of filing/furnishing:   |
|    |              |          | contained in the international application as filed.  |
|    |              |          | filed together with the international application in electronic form.   |
|    |              |          | furnished subsequently to this Authority for the purposes of search.  |
| 3. |              | ha<br>co | addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto is been filed or furnished, the required statements that the information in the subsequent or additional ples is identical to that in the application as filed or does not go beyond the application as filed, as propriate, were furnished. |

4. Additional comments:

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

International application No. PCT/US2006/033965

| _                      |  | M- B                |  |                          |              |                            |                   |               |                        |  |
|------------------------|--|---------------------|--|--------------------------|--------------|----------------------------|-------------------|---------------|------------------------|--|
| _                      | RO   | x No. iv            | Lack of unity of                                 | Inventio                 | <u> </u>     | <del></del>                |                   |               |                        |  |
| 1.                     | 1. A In response to the invitation (Form PCT/ISA/206) to pay additional fees, the applicant has, within the applicable time limit: |                     |  |                          |              |                            |                   |               |                        |  |
| □ paid additional fees |  |                     |  |                          |              |                            |                   |               |                        |  |
|                        | □ paid additional fees under protest and, where applicable, the protest fee  |                     |  |                          |              |                            |                   |               |                        |  |
|                        |  |                     | paid additional fee                              | s under pi               | rotest but t | he applicabl               | e protest fee wa  | s not paid    |                        |  |
|                        |  |                     | not paid additional                              | fees                     |              |                            |                   |               |                        |  |
| 2.                     |  | This A              | uthority found that t<br>plicant to pay addition | he require<br>onal fees. | ment of un   | nity of invent             | ion is not compli | ed with and   | chose not to invite    |  |
| 3.                     | Thi  | is Autho            | rity considers that th                           | ne require               | ment of un   | ity of inventi             | on in accordanc   | e with Rule 1 | 13.1, 13.2 and 13.3 is |  |
|                        |  | complie             | d with   |                          |              |                            |                   |               |                        |  |
|                        |  | •                   | plied with for the fol                           | lowing res               | seone.       |                            |                   |               |                        |  |
|                        |  |                     | parate sheet                                     | lowing rec               | 130113.      |                            |                   |               |                        |  |
| 4                      | ٥.   |                     | •  |                          | -Kabadia     |                            | - f-ll            | of the luture | estical analization.   |  |
| 4.                     |  | •                   |  | Deen estat               | olisneg in r | espect of th               | e rollowing parts | or the intern | ational application:   |  |
|                        | ×  | ali parts           | •  |                          |              |                            |                   |               |                        |  |
|                        |  | the part            | s relating to claims l                           | Nos.                     |              |                            |                   |               |                        |  |
|                        |  |                     |  |                          |              |                            |                   |               |                        |  |
|                        |  | x No. V<br>Justrial | Reasoned state<br>applicability; citati          | ment und                 | er Rule 43   | Bbis.1(a)(i)<br>ns support | with regard to r  | oveity, inve  | entive step or         |  |
| 1.                     |  | tement              |  |                          |              |                            | <del></del>       |               | <del> </del>           |  |
|                        | No   | velty (N)           |  | Yes:                     | Claims       |                            |                   |               |                        |  |
|                        |  | ,                   |  | No:                      | Claims       | 1-44                       |                   |               |                        |  |
|                        | inv  | entive st           | ep (IS)  | Yes:                     | Claims       |                            |                   |               |                        |  |
|                        |  |                     |  | No:                      | Claims       | 1-44                       |                   |               |                        |  |
|                        | Ind  | ustrial a           | pplicability (IA)                                | Yes:                     | Claims       | 1-44                       |                   |               |                        |  |
|                        |  |                     |  | No:                      | Claims       |                            |                   |               |                        |  |
| 2.                     | Citá   | ations ar           | nd explanations                                  |                          |              |                            |                   |               |                        |  |

see separate sheet

International application No.

PCT/US2006/033965

### Re item iV

This Authority considers that there are 3 inventions covered by the claims indicated as follows:

- 1: Claims 1 to 16 directed to optimizing bandwidth utilization to a television subscriber premises, depending on the subscriber terminal capabilities, especially the display
- II: Claims 17 to 32 directed to optimizing bandwidth utilization to a television subscriber premises, depending on the program content type or theme (e.g. sports, cartoon)
- III: Claims 33 to 44 directed to optimizing bandwidth utilization to a television subscriber premises, by selecting and assessing the different communication paths available

The reasons for which the inventions are not so linked as to form a single general inventive concept, as required by Rule 13.1 PCT, are as follows:

The prior art has been identified as general knowledge and discloses: general purpose of optimizing scare resources, in this case bandwidth.

**Subject 1**: It follows that the following technical feature of claims 1 to 16 make a contribution over the prior art and can be considered as a special technical feature within the meaning of Rule 13.2 PCT:

- ascertaining display attributes

The problem solved by this special technical feature can therefore be construed as: optimize bandwidth depending on terminal capabilities

**Subject 2**: It follows that the following technical feature of claims 17 to 32 make a contribution over the prior art and can be considered as a special technical feature within the meaning of Rule 13.2 PCT:

- ascertaining content type

The problem solved by this special technical feature can therefore be construed as: optimize bandwidth depending on content

Subject 3: It follows that the following technical feature of claims 33 to 44 make a contribution over the prior art and can be considered as a special technical feature within the meaning of

International application No.

PCT/US2006/033965

### Rule 13.2 PCT:

- tracking bandwidth utilization on multiple links

The problem solved by this special technical feature can therefore be construed as: optimize bandwidth in a system with multiple links

Also, examining the possible correspondence by technical effect, one finds that

- Subject 1: the technical effect of the first invention is to adapt the bandwidth to the display type,
- **Subject 2**: that the technical effect of the second invention is to adapt the bandwidth to the content type
- Subject 3: and that the technical effect of the third invention is to find the most appropriate path for transport

This appears to show lack of corresponding technical effect as well. Consequently, neither the objective problem underlying the subjects of the claimed inventions, nor their solutions defined by the special technical features allow for a relationship to be established between the said inventions, which involves a single general inventive concept.

In conclusion, the groups of claims are not linked by common or corresponding special technical features and define 3 different inventions not linked by a single general inventive concept.

The application, hence does not meet the requirements of unity of invention as defined in Rules 13.1 and 13.2 PCT.

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### Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

A. WRITTEN OPINION FOR THE FIRST INVENTION CLAIMS 1-16

| Reference is made to the following document: D1: WO 02/097584 A (HYPERSPACE COMMUNICATIONS INC [US]) (2002-12-05)  |       |
|--|-------|
| [lack of novelty] A.1. The present application does not meet the criteria of Article 33(1) PCT, because subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.  | the   |
| The document D1 discloses (the references in parentheses applying to this document): optimizing bandwidth by adapting the stream depending on display characteristics (see 0.01, paragraph 30). The subject matter of claim is broad enough to embrace the disclosure D1, and is therefore not new.                        | e.g.  |
| [dependent claims, negative assessment]  A.2. Dependent claims 2 to 16 do not contain any features which, in combination with features of any claim to which they refer, meet the requirements of the PCT in respect novelty and/or inventive step, see document D1 and the corresponding passages cited in search report. | ct of |

### B. WRITTEN OPINION FOR THE SECOND INVENTION CLAIMS 17-32

Reference is made to the following document:

- D1: WO 02/097584 A (HYPERSPACE COMMUNICATIONS INC [US]) (2002-12-05)
- D3: WO 2004/100500 A2 (THOMSON LICENSING SA [FR]; GRIMES KEVIN LLOYD [US]; BURNETT ANGELA REN) 18 November 2004 (2004-11-18)
- D7: US 6,259,733 B1 (2001-07-10)
- D8: WO 2004/091219 A (2004-10-21)

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B.1.1. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of **claim 17** is not new in the sense of Article 33(2) PCT.

The document D7 discloses: adapting bandwidth (variable bit rate encoding and statistical multiplexing, abstract) based upon content type (depending on source parameters like spatial activity, abstract). A football match program would for instance naturally have more spatial activity than weather report program, which can be traced either automatically or manually. The scope of claim 17 is broad enough to embrace the disclosure of D7 and is therefore not new.

- B.1.2. The same applies to the subject matter of claim 28.
- B.1.3. The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of **claim 22** is not new in the sense of Article 33(2) PCT.

The document D8 discloses a method for optimizing data rates, which, when a signal, being recorded and watched, is stopped being watched (in the case of D8 because of signal corruption), completes the recording by non real time download (replacement portions via second communication channel, abstract; non real time, page 4 line 6). The scope of claim 22 is broad enough to embrace the disclosure of D8 and is therefore not new.

- ----- [dependent claims, negative assessment] ------
- B.2.1. Dependent claims 18 to 19 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty, because they are also disclosed in D7 (see passages cited in the search report).
- B.2.2. The subject matter of **claim 20** is a mere juxtaposition of claim 17 an claim 1, without a surprising effect, and is therefore not inventive (see disclosure of D1 and D7).
- B.2.3. The same applies to the subject matter of claim 21 with juxtaposition of D7 and D3.
- B.2.4. Dependent claims 29 to 32 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of

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novelty and/or inventive step, see document D8 and the corresponding passages cited in the search report.

F.Bertrand